

App. No. 10/757,829
Office Action Dated August 8, 2005

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. The Specification and claims 13 and 14 are hereby amended. Claim 17 is new.

Claims 13 and 14 are amended editorially. New claim 17 is supported by page 26, line 34 to page 27, line 1.

The title of the invention was objected to for not being descriptive. The title is amended to address the concerns of the Examiner. Favorable reconsideration of the title is requested.

The Abstract was objected to for not being drawn to the claimed invention. The Abstract is amended to address the concerns of the Examiner. Favorable reconsideration of the Abstract is requested.

Claim 13 was rejected as being anticipated by Moller (US 4,579,658). Applicants traverse this rejection. Moller does not disclose a method for manufacturing an acoustic matching member including filling voids of a porous member with a fluid filling material whose volume after solidification is not less than a volume of the voids of the porous member, where the filling material is supported by the void portions of the porous member, as required by claim 13. Rather, Moller discloses a method of manufacturing a filter element having air permeability (see Abstract). Since the filter element disclosed by Moller allows gas to pass therethrough, the voids cannot be considered to be filled with solidified fluid filling material. In contrast, the method of claim 13 requires filling the voids so that the voids support and are filled by the solidified fluid filling material. Since Moller does not disclose all the steps of the method of claim 13, the reference cannot be considered to anticipate the current invention. Favorable reconsideration of claims 13 is requested.

New claim 17 requires that the filling material comprises epoxy resin. Therefore, the method of manufacturing a filter element having air permeability disclosed by Moller could not

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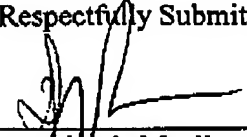
be considered to anticipate the invention of claim 17. The filler of epoxy resin required by claim 17 would not allow air permeability.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612)455-3804.

Respectfully Submitted,

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ABSTRACT OF THE DISCLOSURE

[[An]] A method for manufacturing an acoustic matching member, the acoustic matching member that is being incorporated into an ultrasonic transducer for transmitting and receiving ultrasonic waves, includes and including: at least two layers including a first layer and a second layer that have different acoustic impedance values from each other. The method for manufacturing including the steps of: filling voids ~~The first layer is made of a composite material of a porous member with [[and]] a fluid filling material, and solidifying both the fluid filling material inside the voids and the surplus fluid filling material at the same time supported by void portions of the porous member, the second layer is made of the filling material or the porous member, and the first layer and the second layer are present in this stated order. A piezoelectric member is disposed on a side of the first layer of the acoustic matching member to form an ultrasonic transducer or an ultrasonic flowmeter.~~ The acoustic matching member does not have independent intermediate layers between the layers, so that delamination hardly occurs and the difficulty in the designing associated with the presence of intermediate layers can be avoided.